



Expect more from your measurement with ABB

Midstream solutions overview

The world of midstream oil and gas is changing – and your team must implement solutions to solve new challenges.

You need to address the widening skills gap, with experienced personnel retiring and fewer professionals entering the field. You need to increase productivity, all while maintaining accuracy and quality. You need to incorporate new technology that allows you to optimize your equipment, and you need to meet tightening regulations, all while operating in a way that's safe for your people and the environment, and maintaining profitability.

You're expected to handle a lot – and **it's time to expect it from your measurement partner, too.**

With ABB, you can expect more. From our wide-range of robust products and solutions to our comprehensive service options, we're able to offer a truly integrated solution for your business. When you have a number of standalone products that are pieced together, the solution doesn't always operate in a way that maximizes performance.

With ABB, you can expect an integrated solution, with products that work together, enabling your business to be more efficient, profitable, optimized and safe.

Expect more from your measurement with ABB Ability™

With ABB Ability™, we help you as you connect to the power of the Industrial Internet of Things and, through our services and expertise, go further by turning data insights into the direct action that "closes the loop" and generates customer value in the physical world.

Closing the loop is how we unlock new opportunities for our customers to reduce downtime, lower energy or fuel consumption, lower maintenance effort, increase resource efficiency, elevate performance, and improve productivity via enhanced uptime, speed, and yield.

With data, you can solve many of the challenges that have emerged in recent years, and ABB is there every step of the way, working with you to make the transition into the digital world with ease.

ABB has long been experts in integrating digital components into our customers' systems. These include sensors, software, digital networks and, now, the power of the Industrial Internet of Things. With ABB Ability, we are raising the curtain on the combined power of our collective knowledge, and how it is integrated and applied for our customers.

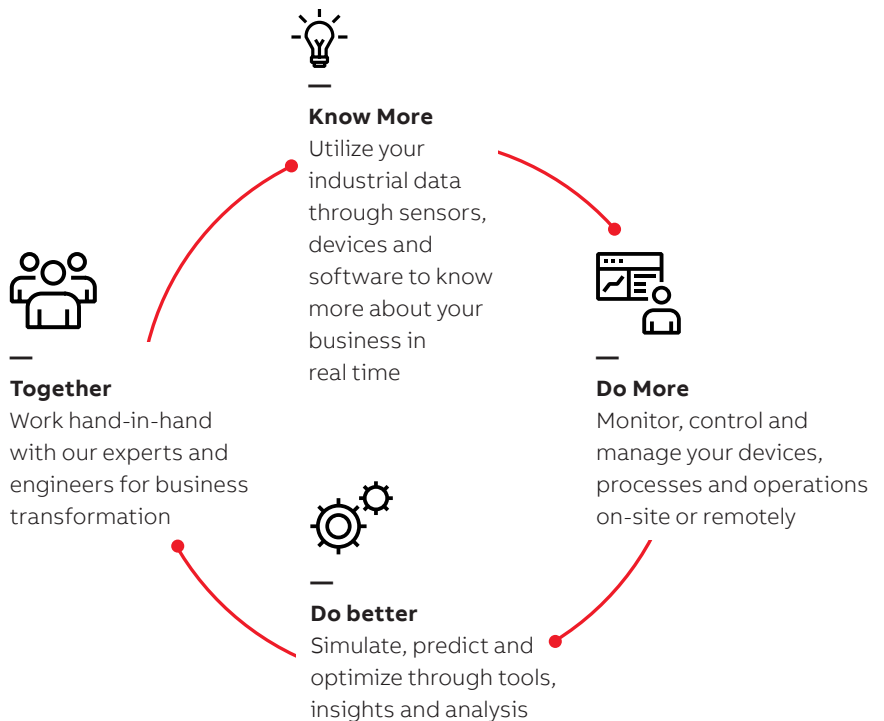
Products within the ABB Measurement and Analytics portfolio provide critical information about your operations. In fact, with an ABB integrated solution, details can be generated from every stage of your entire operation – from your products to your processes. With ABB Ability, our cloud-based capability, you can harness that data all in one place – and this allows you to do so much more.

Sensing data and then analyzing it to create insights are two necessary steps. Realizing these insights in the physical world of a company's operations is the crucial step where all customer value creation occurs. This is where ABB stands apart: in our unparalleled ability to act, delivering end-to-end solutions.

The cycle of optimization with ABB Ability.

With ABB Ability, you're always optimizing your operation.

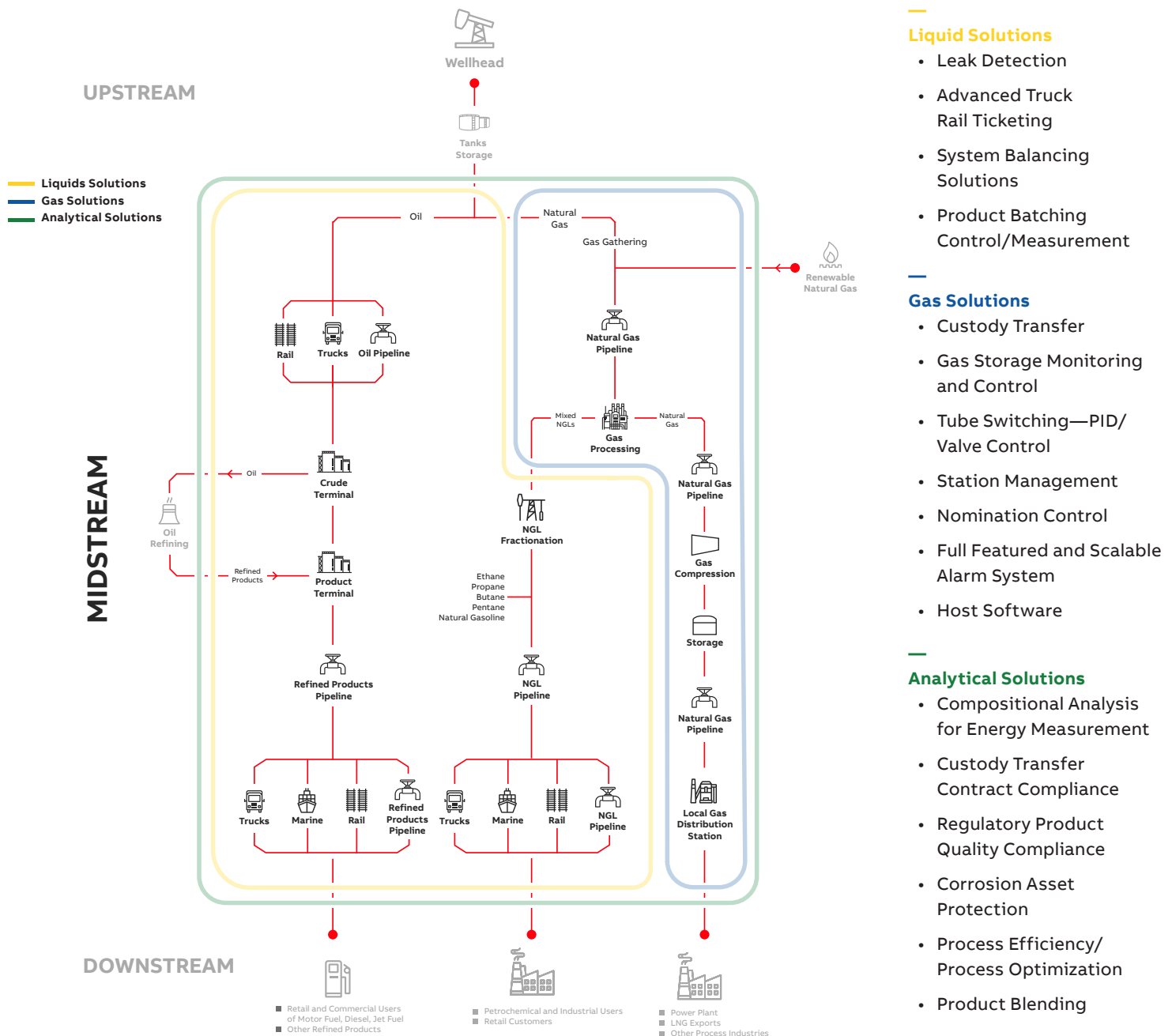
Everything feeds into a continuous loop of progress.



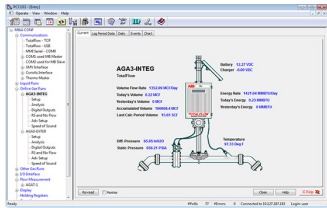
Learn from your business, data and our experts to continue optimizing your operation at every stage.

ABB offers end-to-end solutions for midstream operations

ABB offers measurement and analytical solutions across the midstream value chain. Our solutions are designed to operate together, and they are fully supported by ABB's team of industry experts.



Featured products for midstream businesses



01 TOTALFLOW SOFTWARE SOLUTION

ABB Totalflow software is designed to support ongoing configuration, collection, operations, data distribution and asset management. These easy-to-use software systems provide real-time measurement and control right out of the box, allowing you to quickly begin accessing and controlling your facilities. Everything is created to make logistical, functional and economic sense for your operations.



02 ABB FLOW COMPUTER

All ABB Flow Computers feature multi-tube capability with custody transfer measurement. The flexibility of these units, which includes backward compatibility with legacy Totalflow systems, allows you to increase productivity and improve asset utilization.



03 SPIRIT^{IT} FLOW-X COMPUTER

The Spirit^{IT} Flow-X is a complete, secure, flexible and cost-effective flow computer with a state-of-the-art design and modern user interface. It can be used for liquid, gas and steam, and the complimentary Flow-Express software allows for virtually unlimited customization for any measurement system. The Flow-X/M module is the building block of the system, with one module supporting up to two meter runs, with sufficient communication ports and IO for almost any meter run. Additional liquid measurement functions, such as proving, valve and sampling control, batching, etc., are inherent in each module. ABB offers several mounting options for the Flow-X/M module, depending on installation design.



04 RMC-100

The RMC-100 is a new class of controller that is capable of managing automation, multi-tube liquids and gas measurement, and asset data concentration for very large production and transmission facilities, with backward compatible functionality of ABB Totalflow software, communications and IO technologies. The RMC is fully UL certified as an independent controller that can also be prepackaged in one of our XCore solutions.



05 CORIOLIS METERS

ABB's CoriolisMaster offers a wide range of meter sizes that provide precise measurement of mass flow, volume flow, density and temperature. Our innovative flowmeter offers SensorApplicationMemory, which stores configuration and calibration data locally. Our VeriMass diagnostics tool incorporates leading-edge technology that senses element and electronic failures, monitors meter performance and generates meter verification reports. Additional benefits of using ABB's CoriolisMaster include no mechanical wear, minimum installation issues, power saving and reduced installation space.



06 NATURAL GAS CHROMATOGRAPHS (NGCs)

ABB's series of NGCs set the standard for custody transfer measurement as the most rugged, economical and precise on-line gas chromatographs in the industry. Designed to complement the flow computer for energy metering, the NGC 8200 series provides not only best-in-class, onsite analysis but also offers a highly versatile platform that allows most customers to cut their total installation costs by 50%.



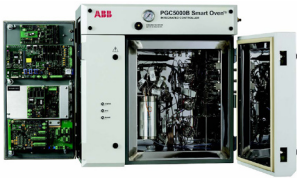
07 TEMPERATURE TRANSMITTERS (FIELD-MOUNTED & HEAD-MOUNTED)

ABB Temperature Transmitters offer enhanced safety, especially when it comes to unplanned outages. With auto-configuration, ABB runs redundant sensors, providing a continuous signal, should one fail. Additionally, we offer easy set-up with the Common HMI platform.



08 266 PRESSURE TRANSMITTER SERIES

The 266 Pressure Transmitter family can provide gas measurement that's the most accurate and robust on the market today. Modbus or analog outputs support differential or linear measurement applications with a 100:1 turn down ratio and through-the-glass key technology for easy setup and configuration.



09 PGC 5000 SERIES

The PGC 5000 series of process gas chromatographs offers application flexibility and rugged reliability for the most demanding process control applications. Whether it is NGLs, total sulfur, sulfur speciation, BTEX, methanol, ethanol or advanced hydrocarbon analysis, the PGC 5000's performance and analytical accuracy is second to none. With the addition of an integrated controller, the customer can rest assured that he is getting "world-class" measurement, all at the lowest possible cost of ownership.



10 REID VAPOR PRESSURE (RVP) ANALYZERS

The ABB RVP 4500 series of Reid Vapor Pressure analyzers for NGL, Crude Oil and Refined Products offers a field-proven solution for RVP measurement in accordance to the ASTM D5482 method. The RVP 4500 series minimizes field support requirements by not requiring calibration in the field and minimizes consumables by not needing a safety purge for hazardous areas. ABB RVP analyzers are backed by an extensive network of field service support.



11 ELECTROMAGNETIC FLOWMETER

ABB offers a complete line of electromagnetic flow meters for oilfield production and produced water applications. With advanced electronics and no moving parts or obstructions in the pipe, the ProcessMaster electromagnetic flowmeter is extremely powerful, reliable and able to withstand harsh operating conditions. These meters deliver the power to solve your most demanding process industry applications, enabling greater operational and financial benefits.

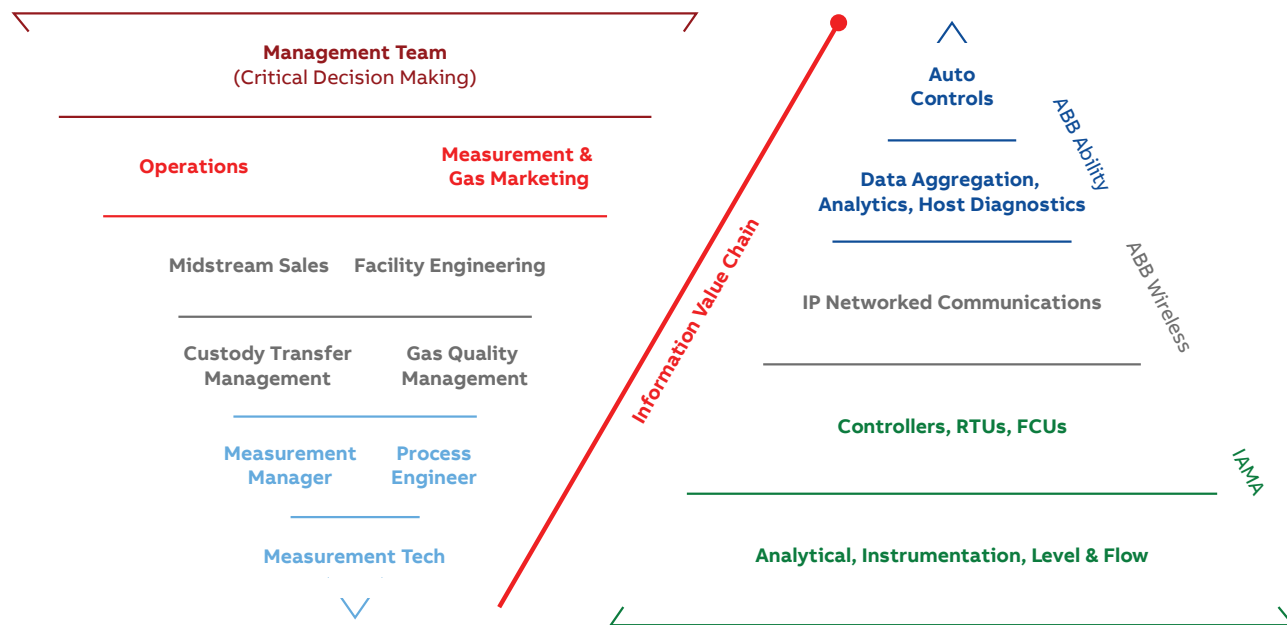


12 LLT100 LASER LEVEL

The LLT100 is specifically made for industrial applications. It provides continuous, non-contact level measurement capabilities for process automation and inventory management. Typical applications are storage tanks. Laser level measurement provides efficient measurement of any liquid. Should the liquid in the tank change, no recalibration is required with LLT100, as accuracy will not be affected. The distinct capabilities of laser level measurement, when tailored for industrial applications, lead to significant benefits for oil and gas operations.

Expect more at every level

ABB can offer integrated, end-to-end solutions that cover all of your business needs – from the product level to our wireless capabilities to our data and analytics. Your business can expect products, expertise and support at every level, from your technicians to your management team.



Measurement Care to support your success, every step of the way

Measurement Care is our service program that bundles the services you routinely need, and more, into a single program. ABB provides lifecycle services including spare parts management, performance-based services and rapid response packages to keep your process moving. An ABB Measurement Care agreement provides the flexibility to support and anticipate your needs. Maximize your investment and secure long-term performance for your assets, at a predictable cost.

Measurement Care



Preventative maintenance

Regular on-site maintenance, service and calibration to maximize uptime, extend product life and meet local regulations.



Emergency visit

A prepaid service visit which includes a repair, travel cost and labor cost.



Phone support plans

SupportLine Plus provides the added benefit of guaranteed response time and priority call status with 24-hour access to ABB technical support resources.



Priority response

Receive preferential scheduling and support.



Spare parts recommendations

A tailored parts list that includes recommendations for on-hand quantities.



Dynamic QR code service*

Display dynamically generated QR codes that provide instant delivery of the right information to the right people, enabling a fast resolution, ideally over the phone.



Remote condition monitoring

A scheduled product health check that provides service recommendations based on condition monitoring findings through an on-site or secure remote connection.

*Contact ABB for details

Discover our services:

Regional Channel Partners

We have local teams that are able to support you right where you're located. Your channel partner will be able to support you with the deep industry knowledge, regulatory information and product expertise you need to be successful.

Technical Support

Whether you need an advisor to talk you through a technical issue or a tech to go to your site for support, our team is here to help. Our experts are able to help supplement your team in the ways that you need us to.

e-Learning Tools

You'll have access to a wide range of resources online that help you and your team feel confident as you work with our products. These resources are available anytime and anywhere. Their modular nature means you don't have to incur travel costs and time away from work to learn. You can learn at your own pace and even in your own particular learning style.

Training

ABB can provide training in a variety of formats, so you can get your team up to speed in the way that works best for you. We can even provide hands-on classroom-style training that's fully customized for your team. ABB ensures your team is able to use your integrated solution with complete confidence and minimal disturbance to your business.

ABB Health Check

ABB Health Check is a comprehensive lifecycle assessment of your current installed base compiled in a report tailored for you. A detailed summary is provided with recommendations for service and product optimizations to increase efficiency, longevity and uptime. The report is based on product lifecycle status, maintenance strategy, technology, data quality and transfer protocols, and in-house personnel skills and training.

Performance Guarantee Agreement

There are many options available for maximizing your equipment availability with service agreements, training and support. From the field to the office, and everywhere in between, we make your satisfaction our top priority.



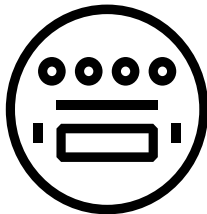
"For me it's about a relationship. If I have a problem, I know I can call my ABB rep and regardless of where they are, they will answer the phone, and/or return the call quickly and I will get some sort of resolution or something moving on it."

- Midstream customer

Applications to get you up and running fast

ABB offers a broad range of solutions that allow you to get started with ease. All you have to do is select, configure and go – it's that simple.

Our solutions across your business:

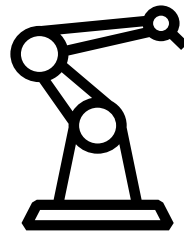


Measurement

ABB can provide applications that greatly enhance your measurement capabilities, including everything from more efficient operations to optimizing cost-savings and revenue. With applications that are created with businesses in mind, you can tap into much greater control in a way that's quick and easy.

Application areas include:

- Oil and gas measurement
- Production and revenue control and optimization
- Pipeline and custody transfer

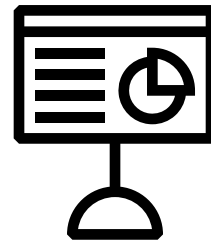


Automation

Automation is central to allowing your business to run in a way that's efficient, while using your resources in places you need them the most. Automation applications are set up to support you in this process, so you can optimize your operation in a way that puts you in control.

Application areas include:

- Automation optimization
- Station and pipeline control for midstream and transmission



Analytics

In the oil and gas industry, there is literally no room for error. Even the most minor miscalculation can result in huge profit losses. That's why ABB's analytics applications can help with everything from custody transfer to regulatory processes.

Application areas include:

- Process analytics
- Data handling and security



Expect more with ABB

ABB is uniquely suited to be a robust partner. From our complete product offerings that span the needs of your entire operation to our customizable services to our range of applications, ABB can provide an integrated solution with offerings that connect from top to bottom. All this means your business is able to run at its best.

ABB Measurement & Analytics

For more product information, visit:
www.abb.com/measurement

With ABB, expect to:

- Continuously optimize to create the most efficient operation
- Gain control of your profits with reliable infrastructure and support
- Enhance your team's knowledge through partnership with our experts
- Operate in a way that's safer, with best-in-class equipment that keeps your people, profit and the planet protected

Contact us today to learn more about
ABB's integrated solutions.